

ABSTRACT OF THE DISCLOSURE

When setting up a working path, a protection path is automatically set up by taking each node on the working path as a start point. A working path setup request message carrying "protection needed/not-needed" information is transmitted from an ingress node toward an egress node along the route of the working path. When transferring a path setup response message as a response to it, each node autonomously determines the route of the protection path and sends out a protection path setup request message along the route of the protection path.

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